

## ABSTRACT

5 A ball bearing fixed assembly in a direct current fan  
comprises a fan blade unit, a motor unit, and a fan base.  
The fan blade unit has an integral fan blade, a spindle at  
the lower central position thereof, a motor casing at an  
inner side of the fan blade, and a magnet bar that are attached  
to an inner side of the casing. The motor unit has an insulation  
10 frame, silicon steel sheets, a circuit board and coils. The  
silicon steel sheets horizontally surround the insulation  
frame, the circuit board is disposed below the insulation  
frame, and the coils are perpendicular to the silicon steel  
sheets and mounted within the insulating frame. A ball  
15 bearing is installed in a central position within the fan  
base and fits with the spindle. An oil chamber is disposed  
below the ball bearing with a first receiving room and a  
second receiving room. The second receiving room is disposed  
above the first receiving room. The spindle has the lower  
20 end thereof extending into the first receiving room, which  
has filled with lubrication oil. A retaining ring is attached  
to the spindle at a position above the first receiving room.  
A spring surrounds the axis and is arranged between the  
retaining ring and the ball bearing.